

# INDEX TO VOLUME 37

METAL INDUSTRY, January-December, 1939

## ARTICLES

Abrasive Operations, Definitions of Terms Describing	31	Definitions of Terms Describing Abrasive Operations	31	Influence of Microstructure Upon the Process of Diffusion in Solid Metals	523	
Adherence of Organic Coatings to Metals	546	Depressing, Recent Developments in Solvent and Vapor	411	Iron, Electroforming with	461	
Alkaline Tin Plating Bath, A Study of the	161	Depositing Uniform Thicknesses of Metal for Plating to Specifications	24	Iron Plating, A Resume of	377	
Alloys, Identification of Light Metal	358, 408	Deposits and Peeling, Brighteners, Brittle	430	Japaning Department, Useful Pointers for the Jewelry, Finishing Solid Gold	541	
Alloys, Metals and	6	Determination of Free Sodium Cyanide and Ammonia in Brass Plating Solutions	171	52	Lacquering, Centrifugal	115
Alloys, New Rolling Mill for Brass Copper and Copper Base	124	Determination of Metals, Conductometric Methods for Analytical	171	Lacquers and Enamels	15	
Alloys, Plating on Lead-Antimony	458	Determination of Tartrates in Cyanide Copper Solutions	580	Lacquers and Enamels, Equipment for	16	
Alloys, Some Reflectivity Relationships of Individual Metals to Electroplated	111, 168	Development of Filters for Plating Solutions	27	Lead-Antimony Alloys, Plating on	458	
Aluminum, Anodic Coating of	513	Development of Industrial Spray Booths	63	Lead Castings, Application and Finishing of Antimonial	218	
Ammonia in Brass Plating Solutions, Determination of Free Sodium Cyanide and Analysis in the Plating Industry, Polarographic	171, 565	Developments in Electroplating and Finishing During 1938, Review of Technical Developments of 1938 in Supplies and Equipment for Plating and Finishing Diffusion in Solid Metals, The Influence of Microstructure Upon the Process of	3	Lead-Low Tin Alloys as Coating Materials, High	511	
Analysis of the Cadmium Cyanide Complex, The Formula and Analytical Determination of Metals, Conductometric Methods for	404	Dipping of Non-Ferrous Metals, Bright	523	Lead Plating, A Resume of	335	
Annealing of Cold Rolled Strip, Continuous Strand	21	Dipping of Stainless Steel, Bright	401	Lead-Tin Alloys, Metal Spraying of	207	
Annual National Metal Congress and Exposition to be held in Chicago, Oct. 23-27, The 21st	76	Drag-Out Losses from Plating Solutions	585	Light Metal Alloys, Identification of	358, 408	
Anodes	451	Drag-Out, Measurement of	215	Magnesium Alloys, Surface Treatment of	544	
Anodic Coating of Aluminum	14	Effects of Temperature on Plated Coatings, The	320	Maintaining First-Aid Fire Protection	330	
Anodic Electrodeposition of Rubber on Metals	513	Electrochemical Society a Success, New York Meeting of the	469	Measurement and Control of pH, The	317	
Antimonial Lead Castings, Application and Finishing of	227	Electrodeposition of Synthetic Resins	454	Metal Cleaning	320	
Application and Finishing of Antimonial Lead Castings	218	Electroforming with Iron	550	Metal Congress and Exposition to be held in Chicago, Oct. 23-27, The 21st Annual National	10	
Application of Hard Chromium Plating, The	218	Electroplater, The Value of the Microscope to the	461	Metal Finishing, Quality and Quantity in	451	
Applications of Supersonic Waves	83	Electroplaters Hold Successful Convention at Asbury Park	355	Metal Spraying	69	
Automatic Plating	275	Electroplating and Finishing During 1938, Review of Technical Developments in	309	Metal Spraying, Salvaging of Equipment by Metal Stampings, Production of Nameplates and	361	
Booths, Development of Industrial Spray	63	Electroplating Digest	3	Metallurgical Digest	207	
Brass Copper and Copper Base Alloys, New Rolling Mill for	124	Effects of Temperature on Plated Coatings, The	131, 182, 227, 281, 335, 377, 421, 476, 524, 584,	367		
Brass Plating Solutions, Determination of Free Sodium Cyanide and Ammonia in	171	Electroplating of Automobile Parts in the Soviet Union	585	Metals and Alloys	523	
Bright Dipping of Non-Ferrous Metals	401	Electroplating Solutions, Filtration of	500	Metals, Conductometric Methods for Analytical Determination of	6	
Bright Dipping of Stainless Steel	584	Enamels, Equipment for Lacquers and	117	Metals to Electroplated Alloys, Some Reflectivity Relationships of Individual	21	
Bright Nickel Plating	365	Enamels, Lacquers and	16	168		
Brighteners, Brittle Deposits and Peeling	430	Equipment for Lacquers and Enamels	15	Method of Semi-Automatically Polishing and Buffing, A New	71	
Brittle Deposits and Peeling, Brighteners	430	Equipment for Plating and Finishing, Developments of 1938 in Supplies and	16	Methods, A Review of Finishing	370	
Buffing, Grinding, Polishing and	8	Equipment, Miscellaneous Special	6	Methods for Analytical Determination of Metals Conductometric	21	
Buffing Semi-Automatically, A New Method of Polishing and	71	External Heating of Plating Solutions	273	Microscope to the Electroplater, the Value of the	355	
Cadmium, Coloring of	123	Fast Curing Synthetic Finishes	19	Mileage Chart for Calculating Paint for Milk Cans and Ice Cream Cans, Hot-Dip Tinning of	122	
Cadmium Cyanide Complex, The Formula and Analysis of the	404	Filters for Plating Solutions, Development of Filtration of Electroplating Solutions	27	Mill for Brass Copper and Copper Base Alloys, New Rolling	573	
Cadmium Electrodeposits, The Testing and Stripping of Zinc and	211	Finishes, Fast Curing Synthetic	117	Miscellaneous Special Equipment	17	
Calculating Paint Mileage, Chart for	122	Finishing Cost Calculations	19	Nameplates and Metal Stampings, Production of	67	
Calculations, Finishing Cost	77	Finishing, Developments of 1938 in Supplies and Equipment for Plating and	6	New York Meeting of the Electrochemical Society a Success	454	
Cans, Hot-Dip Tinning of Milk Cans and Ice Cream	573	Finishing During 1938, Review of Technical Developments in Electroplating and	370	Nickel Plating, Bright	365	
Centrifugal Lacquering	115	Finishing Methods, A Review of	218	Organic Finishing Materials, Circulatory Systems for	265	
Chart for Calculating Paint Mileage	122	Finishing of Antimonial Lead Castings, Application and	69	Oven Capacity, Increasing Conveyor	540	
Chromium Plating, The Application of Hard Circulatory Systems for Organic Finishing Materials	415	Finishing, Quality and Quantity in Metal	72	Oxidation and Tarnishing of Copper and Its Alloys, Preventing	216	
Cleaning, Metal	265	Fire Protection, Maintaining First-Aid	330	Paint Films, The Thickness of Wet and Cured	328	
Coatings, Effects of Temperature on Plated Coatings to Metals, Adherence of Organic	10	Formula and Analysis of the Cadmium Cyanide Complex, The	404	Paint Mileage, Chart for Calculating	122	
Cobalt Plating, A Resume of	469	Galvanizing Equipment, Gas-Fired	577	Patents of Interest to Electroplaters	524	
Cold Rolled Strip, Continuous Strand Annealing of	546	Galvanizing in 1938, A Review of Hot Gas-Fired Galvanizing Equipment	5	Peeling, Brighteners, Brittle Deposits and	430	
Coloring of Cadmium	84	Generators	12	pH, The Measurement and Control of	270	
Conductometric Methods for Analytical Determination of Metals	76	Gold and Silver from Plating Solutions, Recovery of	160	Plated Coatings, The Effects of Temperature on	469	
Constructive Pre-plating Methods	123	Gold Jewelry, Finishing Solid	72	Plating, A Resume of Cobalt	84	
Continuous Strand Annealing of Cold Rolled Strip	21	Gold Plating Industry, Racks vs. Wires in the	465	Plating, A Resume of Indium	421	
Control of pH, The Measurement and	323	Grinding, Polishing and Buffing	8	Plating, A Resume of Lead	281	
Convention at Asbury Park, Electroplaters Hold Successful	76	Gun in Industry, The Spray	221	Plating and Finishing, Developments of 1938 in Supplies and Equipment for	335	
Conveyor Oven Capacity, Increasing	309	Hard Chromium Plating, The Application of Hardness of Electrodeposited Metals	415	Plating on Lead-Antimony Alloys	6	
Copper and Copper Base Alloys, New Rolling Mill for Brass	540	Heating of Plating Solutions, External	502	Plating, Resume of Platinum	458	
Copper and Its Alloys, Preventing Oxidation and Tarnishing of	124	High Lead-Low Tin Alloys as Coating Materials	273	Plating, Solutions, Development of Filters for	27	
Copper Solutions, Determination of Tartrates in Cyanide	216	Hot-Dip Tinning of Milk Cans and Ice Cream Cans	573	Plating Solutions, Drag-Out Losses from	215	
Correction	580	Hot Galvanizing in 1938, A Review of	5	Plating Solutions, External Heating of	273	
Correction	80	Identification of Light Metal Alloys	408	Plating Solutions, Impurities in	259	
Cost Calculations, Finishing	510	Impurities in Plating Solutions	259	Plating Tanks	13	
Cyanide and Ammonia in Brass Plating Solutions, Determination of Free Sodium	77	Increasing Conveyor Oven Capacity	540	Plating, The Application of Hard Chromium	415	
Solutions	171	Indium Plating, A Resume of	421	Plating to Specifications, Depositing Uniform Thicknesses of Metal for	24	
		Industrial Spray Booths, Development of	63	Platinum Plating, Resume of	182	

Polarographic Analysis in the Plating Industry	565	Useful Pointers for the Japanning Department	541	Ingersoll, E. Centrifugal Lacquering	115
Polishing and Buffing, Grinding	8			Ingersoll, E. F. Properties, Heat Treatment and Finishing of Stainless Steels	503
Polishing and Buffing Semi-Automatically, A New Method of	71	Value of the Microscope to the Electroplater, The	355	Kelton, E. H. Rolled Zinc	79
Polishing, Practical Up-to-Date	186	Vapor Degreasing, Recent Developments in Solvent and	411	Klinkenstein, Gustave. A Review of Finishing Methods	370
Practical Up-to-Date Polishing	186			Kushner, Joseph B. A Resume of Indium Plating	421
Pre-plating Methods, Constructive	323			Kushner, Joseph B. A Resume of Iron Plating	377
Preventing Oxidation and Tarnishing of Copper and Its Alloys	216	Water in the Plating Room	165	Kushner, Joseph B. A Resume of Lead Plating	335
Production of Nameplates and Metal Stampings	67	Wires in the Gold Plating Industry, Racks vs.	465	Kushner, Joseph B. High Lead-low Tin Alloys as Coating Materials	511
Properties, Heat Treatment and Finishing of Stainless Steels	503			Kushner, Joseph B. Measurement of Drag-Out	320
Protection of Silver by the Electrolytic Deposition of Beryllia	507	Zinc and Cadmium Electrodeposits, The Testing and Stripping of Zinc, Rolled	211	Kushner, Joseph B. Patents of Interest to Electroplaters	335
Quality and Quantity in Metal Finishing	69		79	Kushner, Joseph B. Racks vs. Wires in the Gold Plating Industry	465
Quantity in Metal Finishing, Quality and	69			Kushner, Joseph B. Resume of Platinum Plating	131, 182
Racks vs. Wires in the Gold Plating Industry	465				
Recent Developments in Solvent and Vapor Degreasing	411				
Recovery of Gold and Silver from Plating Solutions	160				
Rectoplat, The	384				
Reels, Constant Tension	78				
Reflectivity Relationships of Individual Metals to Electroplated Alloys, Some	111				
Resins, Electrodeposition of	168				
Resume of Cobalt Plating	550				
Resume of Indium Plating, A	84				
Resume of Iron Plating, A	421				
Resume of Lead Plating, A	377				
Resume of Platinum Plating, A	335				
Review of Finishing Methods, A	281				
Review of Hot Galvanizing in 1938	182				
Review of Technical Developments in Electroplating and Finishing During 1938	370				
Rolled Strip, Continuous Strand Annealing of Cold	5				
Rolled Zinc	76				
Rolling Mill for Brass Copper and Copper Base Alloys, New	79				
Routine Tests for Tinplate	124				
Rubber on Metals, Anodic Electrodeposition of	406				
Salvaging of Equipment by Metal Spraying	571				
Silver by the Electrolytic Deposition of Beryllia, The Protection of	507				
Silver from Plating Solutions, Recovery of Gold and	160				
Sodium Cyanide and Ammonia in Brass Plating Solutions, Determination of Free	171				
Solutions, Development of Filters for Plating	27				
Solvent and Vapor Degreasing, Recent Developments in	411				
Some Reflectivity Relationships of Individual Metals to Electroplated Alloys	111				
Soviet Union, Electroplating of Automobile Parts in the	500				
Special Equipment, Miscellaneous Specifications, Depositing Uniform Thicknesses of Metal for Plating to	17				
Spray Booths, Development of Industrial Spray Gun in Industry, The	24				
Spraying, Metal	63				
Spraying, Salvaging of Equipment by Metal	221				
Stainless Steel, Bright Dipping of	361				
Stainless Steels, Properties, Heat Treatment and Finishing of	207				
Stampings, Production of Nameplates and Metal	571				
Steel, Bright Dipping of Stainless Strip, Continuous Strand Annealing of Cold Rolled	585				
Stripping of Zinc and Cadmium Electrodeposits, The Testing and	76				
Study of the Alkaline Tin Plating Bath Supplies and Equipment for Plating and Finishing, Developments of 1938 in	211				
Surface Treatment of Magnesium Alloys	161				
Synthetic Finishes, Fast Curing Systems for Organic Finishing Materials, Circulatory	544				
Tanks, Plating	19				
Tarnishing of Copper and Its Alloys, Preventing Oxidation and	13				
Tartrates in Cyanide Copper Solutions, Determination of	216				
Technical Developments in Electroplating and Finishing During 1938, Review of	580				
Temperature on Plated Coatings, The Effects of	3				
Tension Reels, Constant	469				
Terms Describing Abrasive Operations, Definitions of	78				
Testing and Stripping of Zinc and Cadmium Electrodeposits, The	211				
Tests for Tinplate, Routine	406				
Thickness of Wet and Cured Paint Films, The	328				
Thicknesses of Metal for Plating to Specifications, Depositing Uniform	24				
Tin Alloys as Coating Materials, High Lead-Low	511				
Tin Plating Bath, A Study of the Alkaline Tinning of Milk Cans and Ice Cream Cans, Hot-Dip	161				
Tinplate, Routine Tests for	573				
Imhoff, Wallace G. A Review of Hot Galvanizing in 1938	406				
Imhoff, Wallace G. Hot-Dip Tinning of Milk Cans and Ice Cream Cans	328				
Hubel, John E. Salvaging of Equipment by Metal Spraying	24				
Hoare, W. E. Routine Tests for Tinplate	328				
Hogaboom, George B. Automatic Plating	275				
Hogaboom, George B. Water in the Plating Room	270				
Hogaboom, Jr., G. B. The Measurement and Control of pH	165				
Heiman, Samuel. A Study of the Alkaline Tin Plating Bath	171				
Heiman, Samuel. Determination of Free Sodium Cyanide and Ammonia in Brass Plating Solutions	406				
Hoare, W. E. Routine Tests for Tinplate	275				
Hogaboom, George B. Water in the Plating Room	270				
Hogaboom, Jr., G. B. The Measurement and Control of pH	165				
Hubel, John E. Salvaging of Equipment by Metal Spraying	317				
Imhoff, Wallace G. A Review of Hot Galvanizing in 1938	5				
Imhoff, Wallace G. Hot-Dip Tinning of Milk Cans and Ice Cream Cans	573				
Ingersoll, E. Centrifugal Lacquering	541				
Ingersoll, E. F. Properties, Heat Treatment and Finishing of Stainless Steels	503				
Kelton, E. H. Rolled Zinc	355				
Klinkenstein, Gustave. A Review of Finishing Methods	411				
Kushner, Joseph B. A Resume of Indium Plating	165				
Kushner, Joseph B. A Resume of Iron Plating	465				
Kushner, Joseph B. A Resume of Lead Plating	211				
Kushner, Joseph B. High Lead-low Tin Alloys as Coating Materials	79				
Kushner, Joseph B. Measurement of Drag-Out	79				
Kushner, Joseph B. Patents of Interest to Electroplaters	211				
Kushner, Joseph B. Racks vs. Wires in the Gold Plating Industry	79				
Kushner, Joseph B. Resume of Platinum Plating	131				
Lawrence, M. E. Metal Spraying of Lead-Tin Alloys	273				
Linick, Leslie L. Brighteners, Brittle Deposits and Peeling	273				
Lo Presti, Philip J. Drag-Out Losses from Plating Solutions	273				
Lucasse, Walter W. A Study of the Alkaline Tin Plating Bath	161				
McNabb, Wallace M. Determination of Free Sodium Cyanide and Ammonia in Brass Plating Solutions	273				
Maar, Leonard F. Maintaining First-Aid Fire Protection	330				
Mallory, H. R. The Rectoplat	384				
Mattacott, Vincent. Impurities in Plating Solutions	259				
Meyer, Dr. Walter R. Bright Dipping of Non-Ferrous Metals	401				
Meyer, Dr. Walter R. Filtration of Electroplating Solutions	117				
Meyer, Dr. Walter R. Review of Technical Developments in Electroplating and Finishing During 1938	3				
Oldham, Paul A. Finishing Solid Gold Jewelry	273				
Orbaugh, M. H. Electroforming with Iron	461				
Price, L. Preventing Oxidation and Tarnishing of Copper and Its Alloys	216				
Price, L. E. Protection of Silver by the Electrolytic Deposition of Beryllia	507				
Promisel, Nathan E. The Testing and Stripping of Zinc and Cadmium Electrodeposits	211				
Promisel, N. E. Value of the Microscope to the Electroplater	355				
Ritzenthaler, Phil. The Effects of Temperature on Plated Coatings	469				
Rooney, Francis J. The Influence of Microstructure Upon the Process of Diffusion in Solid Metals	523				
Ross, W. F. Continuous Strand Annealing of Cold Rolled Strip	76				
Savage, Frank K. Recovery of Gold and Silver from Plating Solutions	160				
Schaefer, Carl. A Resume of Cobalt Plating	84				
Schaefer, Carl. Anodic Electrodeposition of Rubber on Metals	227				
Schaefer, Carl. Electrodeposition of Synthetic Resins	550				
Schuh, Dr. A. E. Adherence of Organic Coatings to Metals	546				
Sheane, W. G. Chart for Calculating Paint Mileage	122				
Sheane, Willoughby G. Finishing Cost Calculations	77				
Sheane, Willoughby G. Increasing Conveyor Oven Capacity	540				
Sheane, Willoughby G. The Thickness of Wet and Cured Paint Films	328				
Sherrick, Paul. Polarographic Analysis in the Plating Industry	565				
Siefen, J. F. Practical Up-to-Date Polishing	186				
Simmons, George. Quality and Quantity in Metal Finishing	69				
Stocker, O. A. Bright Nickel Plating	365				
Stoddard, Jr., W. B. Determination of Tartrates in Cyanide Copper Solutions	580				
Stoddard, Jr., W. B. Electroplating of Automobile Parts in the Soviet Union	500				
Thews, Edmund R. Identification of Light Metal Alloys	408				
Thomas, G. J. Preventing Oxidation and Tarnishing of Copper and Its Alloys	216				
Thomas, G. J. The Protection of Silver by the Electrolytic Deposition of Beryllia	507				
Tierney, J. D. Plating Tanks	13				

Wallace, E. H. Electroforming with Iron  
Wills, H. J. Definitions of Terms Describing Abrasive Operations

461	Manufacture of Stampers for Phonograph Records	583	Dispensing Machines, The Organic Finishing of
31	Malleable Iron, Zinc Plating	225	Oct. 6
	Marbleized Lacquer Effects	179	Drying with Heat Lamps, Radiant Energy
	Mercury Plating	34	607
	Mirror Finishing of Knife Blades	179	
			Electrodeposition of Synthetic Resins
			550
			Evaluation of Spray Operator Ability Oct. 2
			Fume Collection, Proper Hooding Increases Efficiency of Dust and
			Oct. 3
			Heat Lamps, Radiant Energy Drying with Hooding Increases Efficiency of Dust and Fume Collection, Proper
			Oct. 3
			Increasing Conveyor Oven Capacity
			540
			Japanning Department, Useful Pointers for the
			541
			Lamps, Radiant Energy Drying with Heat
			607
			Magnesium Alloys, Surface Treatment of
			544, 605
			Modern Developments in Blast Cleaning Methods
			Oct. 9; Nov. 548
			Organic Finishing Digest Oct. 13; Nov. 550, Organic Finishing of Dispensing Machines, The
			Oct. 6
			Oven Capacity, Increasing Conveyor
			540
			Patents
			Oct. 13
			Proper Hooding Increases Efficiency of Dust and Fume Collection
			Oct. 3
			Radiant Energy Drying with Heat Lamps
			607
			Resins, Electrodeposition of Synthetic
			550
			Rust Proofing and Finishing of Unit Heater Casings and Convector Enclosures
			602
			Solvents in Industry
			609
			Spectrophotometer for Controlling Color
			Oct. 4
			Spray Operator Ability, Evaluation of Oct. 2
			Surface Treatment of Magnesium Alloys
			544, 605
			Useful Pointers for the Japanning Department
			541
			<b>AUTHORS</b>
			Brown, T. P. Radiant Energy Drying with Heat Lamps
			607
			Cleveland, Carleton. Modern Developments in Blast Cleaning Methods Oct. 9; Nov. 548
			Donovan, D. K. The Spectrophotometer for Controlling Colors
			Oct. 4
			Faulhaber, Frank V. Useful Pointers for the Japanning Department
			541
			Grant, Leo. Surface Treatment of Magnesium Alloys
			544, 605
			Ickis, Jr., L. S. Radiant Energy Drying with Heat Lamps
			607
			Jochim, E. W. The Organic Finishing of Dispensing Machines
			Oct. 6
			Perkins, C. T. Rust Proofing and Finishing of Unit Heater Casings and Convector Enclosures
			602
			Schaefer, Carl. Electrodeposition of Synthetic Resins
			550
			Schuh, Dr. A. E. Adherence of Organic Coatings to Metals
			546, 598
			Sheane, Willoughby G. Evaluation of Spray Operator Ability
			Oct. 2
			Sheane, Willoughby G. Increasing Conveyor Oven Capacity
			540
			<b>SHOP PROBLEMS</b>
			Centrifugal Lacquering
			549
			Lacquering, Centrifugal
			549
			Heavy Iron Plating
			226
			Hollow Ware, Silver on
			473
			Immersion Tinning
			473
			Iron Plating
			474
			Iron Plating, Heavy
			226
			Knife Blades, Mirror Finishing of
			179
			Lacquer Effects, Marbleized
			179
			Lacquering, Centrifugal
			549
			Low Fusing Alloys
			129
			Lumps in Silver Plating
			376